

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
UNITED DISTRICTS OF SOUTH WEST CHESHIRE
FOR THE YEAR 1911.

*To the Chairman and Members of the Joint Sanitary Committee
for the South West Cheshire United Districts.*

GENTLEMEN,

I have the honour to present to you my Annual Report on the sanitary condition of the Tarporley Urban District, Chester, Tarvin, and Malpas Rural Districts, for the year ending December 31st, 1911.

The Report is based on the tabular statement issued by the Public Health Department of the Cheshire County Council, amended so as to bring it into line with the Order of the Local Government Board dated December 13th, 1910.

The Report deals shortly with the combined district as a whole, then with the details of each district individually for simplification and comparison.

SUMMARY OF VITAL STATISTICS FOR THE **UNITED DISTRICTS**

OF SOUTH WEST CHESHIRE FOR 1911.

Area	...	...	...	...	119,993 acres
Population	...	...	...	...	32,971
Births	...	...	...	...	689
Birth-rate...	...	...	...	...	20·9
Deaths	...	...	...	...	410
Death-rate	...	...	...	...	12·4
Infantile Mortality	...	...	...	...	70, equal to a rate of 101 per 1,000 births

PHYSICAL FEATURES.—The United District of South West Cheshire consists of Tarporley Urban District, Chester Rural, Tarvin Rural, and Malpas Rural Districts. This whole district is practically what is known as the Cheshire Vale. It is bounded on the north by the River Mersey and Manchester Ship Canal, on the south by the Wych Brook, on the west by the River Dee and its tributary the Pulford Brook, on the east by a range of hills—Kelsall Rise, the Peckforton Hills, and Harthill; these hills are a continuation of the Overton, Helsby, and Birch Hills, which lie to their north, and almost touch the River Mersey. The River Gowey runs nearly north and south of the district from Beeston to the Mersey.

The district is purely agricultural, cheese-making and milk selling to the great industrial centres of Liverpool and Manchester, and some of the milk is sent as far as London, a distance of 190 miles. The cheeses made in Cheshire have a world-wide repute, and yearly some of the cheeses are sent to nearly every quarter of the globe.

Statistics show that milk produced in the County contains a greater percentage of bacilli than milk produced in a town such as Liverpool ; this, with our perfect pastures and fresh air, ought not to be. The bacillus tuberculosis found in milk indicates that the animals from which the milk was taken were tubercular, or that the pails into which the milk was received, or the milkers' hands were infected from previous contact with a diseased cow or person ; this, as one can readily see, may infect the teats of the other healthy animals. Milk producers have already shown a willingness to be advised as to the best methods of keeping their cattle and cowsheds in the most healthy and sanitary conditions, and I hope that any milk producer wanting advice on the subject will not hesitate to ask, as I will be pleased to offer any advice that I can.

The district is very fortunate in having such a fine river as the Dee with its numerous brooks which are never dry, and add greatly to the quality of the pastures and the health of the cattle. The general conditions of the rural inhabitants is good, there is very little poverty, and as a whole they are well housed and clean ; the chief occupation is agricultural employment, which has certainly no detrimental effect on the health of the district. There is no scarcity of houses for the working classes, and what houses there are, with very few exceptions, are adequate and fit for habitation ; there is a sufficiency of open spaces about the houses, and the surroundings on the whole are satisfactory. Where there are deficiencies these are being pointed out, and will in time be remedied.

MIDWIVES' ACT, 1902.—At the close of 1911 there were 31 women in the United Districts of Tarvin, Chester and Malpas, qualified under the Midwives' Act to attend confinements :—

Tarvin	...	...	...	12
Chester	...	...	..	11
Malpas	...	...	...	8
Tarporley	...	..	..	0

They attended at 391 births—180 in Tarvin, 131 in Chester, and 80 in Malpas—the average being about 12 cases to each midwife. One midwife attended as many as 72 cases.

STILL-BIRTHS.—The number of still-births notified by midwives was 25—9 in Tarvin, 8 in Chester Rural District, and 8 in Malpas.

MEDICAL ASSISTANCE.—Under the rules issued by the Central Midwives' Board, a midwife must advise that medical

assistance shall be called in where there is any abnormal circumstances connected with the confinement. The total number of records received were 74—32 in Tarvin, 29 in Chester Rural District, and 13 in Malpas.

PUERPERAL FEVER.—There were no cases of Puerperal Fever notified to the Medical Officer of Health during the year, and no cases of other infectious disease are known to have occurred. This speaks well of the attention the midwives pay to their rules, and to their cleansing themselves, their clothing, and their appliances.

ROUTINE VISITS TO MIDWIVES.—Rule 23, Central Midwives' Board, states :—The Local Supervising Authority shall make arrangements to secure a proper inspection of the register of cases, bag of appliances, etc., of every midwife practising in the district of such authority, and when thought necessary an inspection of her place of residence and an investigation of her mode of practice.

In accordance with this rule, 27 visits were paid since October 1st, all at the places of residence. The general condition of the homes of midwives and their personal cleanliness was satisfactory.

SCHOOLS.—In the combined district, the arrangements for the medical inspection of children in elementary schools in your district are under the supervision of the County Medical Officer of Health, who is assisted by two Assistant Medical Officers and four Nurses, and other Part-time Nurses or District Nurses. Cases of communicable skin and eye affections discovered in schools are visited and followed up by the nurses.

Several schools in your district have been closed for Measles, Whooping Cough, Chickenpox and Mumps, and one school for Scabies for a few days to enable a thorough cleansing and disinfecting. Most of the schools are kept clean and well ventilated.

TARPORLEY URBAN DISTRICT.

SUMMARY OF VITAL STATISTICS FOR 1911.

Area	...	...	...	...	6,194 acres
Census Population, 1911	..	...	...	...	2,604
Population estimated to June 30th, 1911	...	...	...	...	2,603
Births (corrected)	...	...	...	...	71
Birth-rate	...	...	...	...	27·2 per 1,000
Deaths (corrected)	...	...	...	...	43
Death-rate	...	...	...	...	16·5
Infantile Mortality	...	...	...	...	6 under 1 year or 84·5 per 1,000 births

BIRTHS.—During the fifty-two weeks of the year ending December 31st, 1911, the returns of the Registrar recorded 71 births, which is equal to a birth-rate of 27·2 per 1,000 of the population, the highest recorded for five years. There were six illegitimate births.

DEATHS.—The total number of deaths was 43, which is equal to a death-rate of 16·5. Three non-residents died in the district and five residents died out of the district, corrected number 43. Six of these deaths were under one year of age, and nine 65 years and upwards.

INFANT MORTALITY.—Of the six deaths under one year of age mentioned above, three were under one week old, two between one and three months, one between six and nine months, giving an infant mortality rate of 84·5 per 1,000 births.

INFECTIOUS DISEASES NOTIFICATION ACT.—There were six cases of diphtheria including membranous croup notified during 1911. Two of these cases died, one between the ages of 2 and 5 years, and one between the ages of 5 and 15 years. No other cases of infectious disease was reported.

Infectious diseases may be sent to the Chester Isolation Hospital, Sealand, near Chester; Tarporley, Tarvin, and Malpas, and Chester, constituting a Joint Hospital Board.

SANITARY INSPECTION.—The Surveyor and Inspector, Mr. Samuel Greenway, has made inspections from to time alone and with the Medical Officer of Health. A tabulated statement shewing particulars of these inspections is appended.

TARPORLEY URBAN DISTRICT.

SUMMARY OF SANITARY WORK DURING 1911.

I. None of the following Adoptive Acts are in force in your district :—

1. Infections Diseases Prevention Act.
2. Notification of Births Acts.
3. Public Health Amendment Act, 1907.

II. There are no other Adoptive Acts, Bye-laws and Regulations in force in your district.

III. **MILK SUPPLY.**—TARPORLEY URBAN DISTRICT. The total number of Registered premises at the close of 1911 was 15—Tarpорley 5, Eaton 2, Rushton 2, Utkinton 6. 45 Inspections were made, 15 Informal Notices were served and 15 were complied with. No notices were served for non-compliance with the Regulations, and no legal actions were necessary.

The milk produced within the district is wholesome and no action has been taken as to tuberculous milk.

IV. **FOOD INSPECTION.**—Food Inspection is systematically carried out in your district. There are no Public Slaughterhouses but there are two private ones. Twenty-four inspections have been made during the year of the six Bakehouses in the district. Sausages are made during the winter months at one shop or wooden structure, this is generally clean and in order.

V. **WATER SUPPLY.**—TARPORLEY URBAN DISTRICT is supplied by the Liverpool Corporation from their Lake Vyrnwy supply, the water mains passing through this district. The out-lying parts are supplied by springs, dip-wells, and ordinary wells. All the supplies are constant and wholesome, and fairly free from the risk of pollution. The Vyrnwy water is a very soft water, and iron pipes are in general use. No contamination of the water by lead has occurred.

VI. **POLLUTION OF RIVERS AND STREAMS.**—In the TARPORLEY URBAN DISTRICT the streams are fairly free from pollution, with the exception of the brooks in the Townships of Eaton and Utkinton, which are polluted by house drainage and farm sewage, there is no manufacturing waste or effluents entering them.

VII. **SEWERAGE AND SEWAGE DISPOSAL.**—TARPORLEY URBAN DISTRICT. There have been no new works of sewerage carried out during 1911, and some parts of the villages are

still without a proper system of sewers. Nearly all the cottages in Tarporley have been provided with w.c.'s, and the remainder will be taken in hand shortly. The sewage is disposed of by means of a precipitation tank, sludge beds and land treatment. These sewage works are in good condition, and the farm, after paying all working expenses, will show a profit. There have been no complaints as to the Disposal Works, and no alterations have taken place at the Disposal Works during 1911.

VIII. **SCAVENGING** is not carried out by the Local Authority but by private arrangement. Each householder as a rule disposing of his own refuse. There is no record of the number of midden-privies, dry ashpits, pail closets, dustbins, and cesspools, in your district.

IX. **HOUSING**.—There has only been one new house built during the year. The number of dwelling-houses inspected under S. 17, Act of 1909, were :—Tarporley, 88, Eaton 21, Rushton 18, Utkinton 24 ; total inspected, 157. One house was considered unfit for habitation and closed. There were 63 representations made to the Local Authority ; no closing orders were made. There were 63 houses where defects were remedied or are in process of being remedied. The number of houses estimated or ascertained within the limits of rent in S. 14 of Act of 1909 were 515 at £16 and under, and 335 at £8 and under. One cottage was closed without the statutory notice. There are no back-to-back houses in the district and no cellar dwellings. There are 30 workshops on the Register—6 bakehouses, 5 joiners, 4 blacksmiths, and 15 various. 72 inspections were made.

X. **PREVENTION OF CONSUMPTION**.—There was no system of notification during 1911. There was one sanitary inspection of a patient's house and one disinfection of ditto, and there was no action *re* spitting. Printed forms will be issued in future to all consumptive patients notified, advising them how to live carefully themselves, and prevent further infection in others. There is no Sanatorium or Hospital accommodation in your district for phthisis patients.

Tabular Statement of Inspector of Nuisances for the Year ended December 31st, 1911.
None of District—TARPORLEY URBAN.

A		B		C		
Number and Nature of Inspections made.		Number.	Number of Notices served.		Result of Service of Notices.	
			Statutory.	Informal.	Notice completed with.	Prosecutions.
					Remaining in hand.	Instituted. Pending.
1. Dwelling Houses (general inspections)		200	1	63	Part	Part
2. Cellar Dwellings		None				
3. Back-to-Back Houses		None				
4. Tents, Vans, Sheds, &c.		None				
5. Courts, Yards, Passages		None				
6. Privy-Middens, Earth or Pail Closets		None				
7. Cesspools						
8. House Drainage						
9. Ditches, Watercourses, &c.						
10. Offensive Accumulations						
11. The Keeping of Animals (P H A., 1875. N. 91. 3)		None				
12. Offensive Trades		None				
13. (a) Slaughterhouses (Public)		24				
		3				
(b) Other Places where Food is produced or sold						
14. Piggeries						
15. (a) Dairies						
	Tarporley 5					
(b) Cowsheds	Faton 2	45		15	15	
(c) Milkshops	Rushton 2					
(a) Factories	Utkinton 6	None				
(b) Workshops		48				
(c) Workplaces		None				
(d) Outworkers' Premises		None				
17. Bakehouses (Overground)		None				
	(Underground)	24		6	6	
18. Common Lodging Houses		None				
19. Houses let in Lodgings		6		1	1	
20. Smoke Observations		None				
21. Canal Boats		None				
22. Infectious Disease Inquiries and Revisits						
23. Miscellaneous		6				
TOTALS			1	85	22	

URBAN DISTRICT OF TARPORLEY.

The administration of the Factory and Workshop Act, 1901, in connection with
Factories, Workshops, Workplaces, and Homework.

I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Pro-secutions.
Factories (Including Factory Laundries) ...	72		
Workshops (Including Workshop Laundries) ...			
Workplaces (Other than Outworkers' premises included in Part 3 of this Report). ...			
Total ...	72		

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :</i>				
Want of cleanliness	1	1		
Want of ventilation ...				
Overcrowding ...				
Want of drainage of floors ...				
Other nuisances (minor) ...	5	5		
Sanitary accommodation { insufficient ... { unsuitable or defective { not separate for sexes ...				
<i>Offences under the Factory & Workshop Act :</i>				
Illegal occupation of underground bakehouse (s. 101) ...				
Breach of special sanitary require- ments for Bakehouses (ss. 97 to 100)				
Other offences ...				
(Excluding offences relating to out- work which are included in Part 3 of this Report) ...				
Total	6	6		

3.—OTHER MATTERS

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5.)	Notified by H.M. Inspector. — Reports (of action taken) sent to H.M. Inspector. —
Other	—
Underground Bakehouses (s. 101):—	—
Certificates granted during the year	—
In use at the end of the year	—
HOMEWORK :—	
<i>List of Outworkers (s. 107) :—</i>	
Lists received	—
Addresses of outworkers	forwarded to other Authorities — recorded from other Authorities —
<i>Homework in unwholesome or infected premises :—</i>	
Notices prohibiting homework in unwholesome premises (s. 108)	Wearing Apparel. — Other. —
Cases of infectious disease notified in homeworkers' premises	— —
Orders prohibiting homework in infected premises (s. 110)	— —
REGISTERED WORKSHOPS :—	
Workshops on the Register (s. 131) at the end of the year :—	
Bakehouses	6
Joiners and Wheelwrights	5
Blacksmiths	4
Various	15
Total number of workshops on Register	30

Table I.

Vital Statistics of Whole Districts during 1911 and previous Years.

Name of District—TARPORLEY URBAN.

Year	Population estimated to middle of each year.	Births.		Total deaths registered in the District.		Transferable Deaths		NET DEATHS BELONGING TO THE DISTRICT.		
		Un-corrected Number.	Nett.	Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age.		At all ages.
								Num-ber.	Rate per 1,000 nett Births	
1906	2615	...	71	37	14.1	...	1	7	98	38 14.5
1907	2609	...	62	25	9.6	...	2	2	32	27 10.3
1908	2603	...	58	27	16.3	...	2	1	17	29 11.1
1909	2600	...	63	32	12.3	...	1	9	142	33 12.7
1910	2594	...	62	44	16.9	...	...	6	113	44 16.9
1911	2603	71	71	41	15.7	3	5	6	84.5	43 16.5

Total Population at all Ages, 2,604, at Census of 1911.

Area of District in Acres (exclusive of area covered by water), 6,194.

Table II. Cases of Infectious Disease notified during the year 1911.
Name of District—TARPORLEY URBAN.

Notifiable Disease.	Number of Cases notified.								Total Cases notified in each locality <i>e.g.</i> Parish or Ward) of the District.							Total cases removed to Hospital.
	At all Ages.	At Ages—Years.							1	2	3	4	5	6	7	
		Under 1.	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards.								
Small-pox
Cholera
Diphtheria (including Membranous Group) ...	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas
Scarlet fever
Typhus Fever
Enteric Fever
Relapsing Fever
Continued Fever
Puerperal Fever
Plague
Under Tuber- culosis Regu- lations 1908
Under Tuber- culosis Regu- lations 1911
Others... Plumbism	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals...	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Isolation Hospital { Name and } Chester Isolation Hospital, Sealand, near Chester.

Isolation Hospital (Name and Situation) } Chester Isolation Hospital, Sealand, near Chester.

Table III.

Causes of, and Ages at, Death during the Year 1911.

Name of District—TARPORLEY URBAN.

CAUSES OF DEATH.		Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
		All Ages.	Under 1 year.	1 and under 2.	2 and under 5	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All causes	{ Certified	43	...	...	...	...	...	...	...	...	...
	{ Uncertified .....		..	...	...	...	...	...	...	...	..
<hr/>											
Enteric Fever .....		...	...	...	...	...	...	...	...	...	...
Small-pox .....		...	...	...	...	...	...	...	...	...	...
Measles.....		...	...	...	...	...	...	...	...	...	...
Scarlet Fever.....		...	...	...	...	...	...	...	...	...	...
Whooping-Cough .....		...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup		2	...	...	1	1	...	...	...	...	...
Influenza .....		...	...	...	...	...	...	...	...	...	...
Erysipelas .....		...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever .....		...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ..		4	...	...	...	1	1	2	...	...	...
Tuberculous Meningitis		1	...	...	...	...	...	1	...	...	...
Other Tuberculous Diseases .....		...	...	...	...	...	...	...	...	...	...
Rheumatic Fever.....		...	...	...	...	...	...	...	...	...	...
Cancer, malignant disease.....		2	...	...	...	...	...	...	2	...	...
Bronchitis		2	...	...	...	...	...	...	2	...	...
Broncho-Pneumonia .....		...	...	...	...	...	...	...	...	...	...
Pneumonia (all other forms)		3	...	...	1	...	...	...	2	...	...
Other diseases of Respiratory organs ..		...	...	...	...	...	...	...	...	...	...
Diarrhœa and Enteritis		3	1	...	...	...	...	...	2	...	...
Appendicitis and Typhlitis .....		...	...	...	...	...	...	...	...	...	...
Alcoholism .....		...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver.....		...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease		2	...	...	...	...	...	...	...	2	...
Puerperal Fever .....		...	...	...	...	...	...	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition .....		...	...	...	...	...	...	...	...	...	...
Congenital Debility and Malformation, including Premature Birth...		4	4	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...		2	...	...	1	...	...	...	1	...	...
Suicides .....		...	...	...	...	...	...	...	...	...	...
Other Defined Diseases		18	1	1	...	...	2	2	5	7	...
Diseases ill-defined or unknown.....		...	...	...	...	...	...	...	...	...	...
<hr/>											
Totals.....		43	6	1	3	2	3	5	14	9	...

Table IV.

Infant Mortality during the Year 1911.

Name of District—TARPORLEY URBAN.

CAUSE OF DEATH.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
All Causes.	{ Certified	...	...	...	...	...	...	...	...	...	...	...	...
	{ Uncertified	...	...	...	...	...	...	...	...	...	...	...	...
{ Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken Pox...	...	...	...	...	...	...	...	...	...	...	...	...
{ Measles	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Diarrhœa	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Enteritis	...	...	...	...	...	...	...	...	...	...	1	...	1
{ Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Abdominal Tuberculous	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Premature Birth	...	...	...	2	...	...	...	2	...	...	...	...	2
{ Atrophy, Debility, Marasmus	...	...	...	...	...	...	...	...	2	...	...	...	...
{ Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Gastritis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Other Causes	...	...	...	1	...	...	...	1	...	...	...	...	1
				3	...	...	...	3	2	...	1	...	6

Nett Births in the Year—Legitimate, 71; Illegitimate, 6.

Nett Deaths in the Year—Legitimate Infants, 5; Illegitimate Infants, 1.

CHESTER RURAL DISTRICT.

SUMMARY OF VITAL STATISTICS FOR 1911.

Area	...	...	...	35,517 acres
Census Population	...	...	...	12,448
Population estimated to June 30th, 1911...				12,486
Births (corrected)	...	...	...	246
Birth-rate ..	..	...	...	19·7
Deaths (corrected)	...	...	...	125
Death-rate ...	...	...	...	10·0
Infantile Mortality	...	...	...	25 under 1 year or 101·6 per 1,000 births

BIRTHS.—During the fifty-two weeks of the year ending Sunday, December 31st, 1911, the returns of the Registrar recorded 246 (corrected), which is equal to a birth-rate of 19·7 per 1,000 of the population. This rate is the lowest since 1908.

DEATHS.—The total number of deaths was 125 (corrected), which is equal to a death-rate of 10·0. 83 non-residents died in the district, and 9 residents died outside the district. 125 is the corrected number. 25 of these deaths occurred in children under one year of age, and 44 of 65 years and upwards. Total deaths in Institutions in the district, 85.

INFANT MORTALITY.—Of the 25 deaths under one year of age mentioned above, 9 were under a week old, 1 between 2 and 3 weeks, and one between 3 and 4 weeks, 6 between 1 and 3 months, 3 between 3 and 6 months, 2 between 6 and 9 months, and 3 between 9 and 12 months, giving an infant mortality rate of 101·6 per 1,000 births.

INFECTIOUS DISEASES NOTIFICATION ACT.—There were 51 cases of Infectious Disease notified during the year 1911.

Diphtheria (including Membranous Croup)	...	5
Erysipelas	...	1
Scarlet Fever	...	43
Enteric Fever	...	2

There were two deaths from Diphtheria, one between age of 2 and 5, the other between age of 5 and 15 years. There were no deaths from Scarlet Fever, Erysipelas, and Enteric Fever.

Infectious diseases are sent to the Chester Isolation Hospital, Sealand, near Chester.

SANITARY INSPECTION.—The Inspector, Mr. Owen, of Dec Banks, Chester, has made numerous inspections from time to time alone and with the Medical Officer of Health. A tabulated statement shewing particulars of these inspections is appended.

CHESTER RURAL DISTRICT.

SUMMARY OF SANITARY WORK DURING 1911.

I. None of the following Adoptive Acts are in force in your district:—

1. Infectious Diseases Prevention Act.
2. Notification of Births Acts.
3. Public Health Amendment Act 1907.

II. There are no other Adoptive Acts, Bye-laws and Regulations in force in your District.

III. **MILK SUPPLY.**—CHESTER RURAL DISTRICT. The number of registered premises at the close of 1911 was dairies 7, cowsheds 156, milkshops 3. These were all regularly inspected. There was only one notice served for non-compliance with regulations, and no legal actions taken for non-compliance with notices. The milk produced within the district is wholesome, and no action has been taken as to tuberculous milk.

IV. **FOOD INSPECTION.**—CHESTER RURAL DISTRICT. Food inspection is not systematically carried out in your district. There are no public slaughterhouses in your district. There are ten private slaughterhouses and numerous others such as pig butchers. The private slaughterhouses are inspected regularly, and systematic inspections are made of bakehouses, which are four in number.

V. **WATER SUPPLY.**—CHESTER RURAL DISTRICT is supplied by the Chester Water Company, by the Wrexham Water Company, and by the West Cheshire Water Company. The out-lying parishes are supplied by springs, dipwells, and ordinary wells. These waters are fairly wholesome and sufficient, except in the Parishes of Dunham Hill and Mickle Trafford and Ince. The water supplies of Dunham Hill and Ince are now under consideration. No contamination of the water by lead has occurred.

VI. **POLLUTION OF RIVERS AND STREAMS.**—In the the CHESTER RURAL DISTRICT some of the streams are polluted. The Helsby Sewage Works in the Runcorn Rural District polluted the Hapsford brook with the storm overflow; this has been remedied and more attention paid to the pumping station. At great Saughall the stream is polluted by the house drainage of the whole village. A sewage scheme is now under consideration. House drainage pollutes the River Gowy at Mickle Trafford, and some cottages pollute the brook at Abbots Mend. No manufacturing waste or effluents cause pollution.

VII. SEWERAGE AND SEWAGE DISPOSAL.—There are two new works of sewerage carried out during 1911 :—

1. The Eaton Estate have provided a filter bed at Balderton. This treats a good portion of the Dodleston sewerage as well as Balderton.

2. A similar filter bed has been provided for Poulton.

Great Saughall, and I should say Mickie Trafford, are both in want of a proper system of sewerage. Great Saughall you have already before you for consideration.

The City of Chester sewers dispose of the sewage from Christleton, Great Boughton, Newton, Upton, and the Bache.

Eccleston, Pulford, Poulton, and part of Dodleston, are treated by the Eaton Estate. There have been no complaints during 1911 as to the disposal works in your district, but you complained about the Helsby sewage works polluting the Hapsford brook. There have been no alterations nor extensions in the disposal works during 1911.

VIII. SCAVENGING.—This is carried out by the Rural District Council as far back as passages are concerned in Great Boughton and Newton, and privately. The refuse is removed weekly and fortnightly as occasion requires. There is no record of the number of midden-privies, dry ashpits, pail closets, dustbins, cess-pools, in your district.

IX. HOUSING.—The number of new houses built during 1911 is 44. The number of dwelling-houses inspected under S. 17, Act of 1909, 23. The number of such houses considered unfit for habitation, none. There were no representations made to the Local Authority, and no closing orders were made by the Local Authority. There were 15 houses where defects were found. These are receiving attention, and if not remedied, legal notices will be sent.

The estimated number of houses within the limits of rent in S. 14 of Act of 1909, is 1571. Notices were served to 15 of such houses in 1911. No houses were closed after notice.

There are no houses where the Local Authority has executed the necessary repairs. There are no back-to-back houses in your district, and there are no cellar dwellings in your district.

X. PREVENTION OF CONSUMPTION.—There was only voluntary system of notification of consumption during 1911, and no sanitary inspection of patients' houses. There was no disinfection of patients' houses, and no distribution of advice *re* spitting, &c.

Printed forms will be issued in future to all consumptive patients notified, advising them how to live carefully themselves, and prevent infection in others.

There is no Sanatorium or Hospital accommodation in your district for phthisis patients other than the Workhouse Hospital.

Tabular Statement of Insurances for the Year ended December 31st, 1911.

Name of District—*CHESTER RURAL.*

18

A		B		C			
Number and Nature of Inspections made.		Number.	Number of Notices served.		Result of Service of Notices.		
			Statutory.	Informal.	Notice com- plied with.	Remaining in hand.	Prosecutions. Instituted. Pending.
1.	Dwelling Houses (general inspections).....	78	...	12	12	...	...
2.	Cellar Dwellings.....	None	...	...	...	...	...
3.	Back-to-Back Houses.....	None	...	...	...	...	...
4.	Tents, Vans, Sheds, &c.	None	...	...	...	...	...
5.	Courts, Yards, Passages	No record	...	...	...	...	...
6.	Privy-Middens, Earth or Pail Closets	Do.	...	...	...	...	...
7.	Cesspools	Do.	...	...	...	...	...
8.	House Drainage	95	...	...	...	...	...
9.	Ditches, Watercourses, &c.	12	...	...	...	...	...
10.	Offensive Accumulations	25	...	25	25	...	...
11.	The keeping of Animals (P.H.A., 1875, S. 91, 3)	None	...	...	...	...	...
12.	Offensive Trades	None	...	...	...	...	...
13.	(a) Slaughterhouses (Public)	None	...	...	...	...	...
	(b) " (Private)	10	...	...	...	...	...
	(b) Other Places where Food is produced or sold	4Bakehouses	...	...	...	...	...
14.	Piggeries	1	...	1	1	...	...
15.	(a) Dairies	7	...	...	...	...	...
	(b) Cowsheds	156	...	...	...	...	...
	(c) Milkshops	3	...	...	...	...	...
16.	(a) Factories	7	...	...	...	...	...
	(b) Workshops	10	...	...	...	...	...
	(c) Workplaces .....	...	...	...	...	...	...
	(d) Outworkers' Premises	None	...	...	...	...	...
17.	Bakehouses (Overground)	4	...	...	...	...	...
	" (Underground)	None	...	...	...	...	...
18.	Common Lodging Houses	None	...	...	...	...	...
19.	Houses let in Lodgings	None	...	...	...	...	...
20.	Smoke Observations	None	...	...	...	...	...
21.	Canal Boats	105	...	...	...	...	...
22.	Infectious Disease Inquiries and Revisits	84	...	...	...	...	...
23.	Miscellaneous .....	...	...	...	...	...	...
TOTALS .....		...	...	38	38	...	...

RURAL DISTRICT OF CHESTER.

The administration of the Factory and Workshop Act, 1901, in connection with
Factories, Workshops, Workplaces, and Homework.

I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries)	Inspected regularly.		Nil.
Workshops (Including Workshop Laundries)			
Workplaces (Other than Outworkers' premises included in Part 3 of this Report).			
Total			

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of P'secutions
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :</i>				
Want of cleanliness				
Want of ventilation				
Overcrowding				
Want of drainage of floors				
Other nuisances (minor)				
Sanitary accommodation { insufficient { unsuitable or defective { not separate for sexes...				
<i>Offences under the Factory & Workshop Act</i>				
Illegal occupation of underground bakehouse (s. 101)				
Breach of special sanitary require- ments for Bakehouses (ss. 97 to 100)				
Other offences (Excluding offences relating to out- work which are included in Part 3 of this Report)				
Total	Number not kept	All.	Nil.	Nil.

3.—OTHER MATTERS

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5.)	Notified by H.M. Inspector. Reports (of action taken) sent to H.M. Inspector.
Other	—
Underground Bakehouses (s. 101) :—	—
Certificates granted during the year	—
In use at the end of the year	—
	Number of
	Lists. Out-workers
HOMEWORK :—	
<i>List of Outworkers</i> (s. 107) :—	
Lists received	—
Addresses of outworkers { forwarded to other Authorities recorded from other Authorities	—
<i>Homework in unwholesome or infected premises :—</i>	
Notices prohibiting homework in unwholesome premises (s. 108)	Wearing Apparel. Other.
Cases of infectious disease notified in homeworkers' premises	—
Orders prohibiting homework in infected premises (s. 110)	—
REGISTERED WORKSHOPS :—	
Workshops on the Register (s. 131) at the end of the year :—	
Factories	7
Workshops (Smiths, Joiners, &c.)	10
Bakehouses	4
Total number of workshops on Register	21

Table I. Vital Statistics of Whole Districts during 1911 and previous Years.

Name of District—CHESTER RURAL.

Year	Population estimated to middle of each year.	Births.			Total deaths registered in the District.		Transferable Deaths		NET DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age.		At all ages.	
			Num-ber.	Rate.					Num-ber.	Rate per 1,000 nett Births		
1906	11419	...	154	13·5	201	17·6	97	2	14	91	106	9·3
1907	11551	...	201	17·4	191	16·5	94	10	18	90	107	9·3
1908	11826	...	227	19·2	186	15·7	91	8	14	61	103	8·7
1909	11958	...	264	22·0	293	24·5	133	2	23	87	162	13·5
1910	12302	...	269	21·8	202	16·4	101	3	19	72	113	9·9
1911	12486	239	246	19·7	199	15·9	83	9	25	101·6	125	10·0

Total Population at all Ages, 12,448, at Census of 1911.

Area of District in Acres (exclusive of area covered by water), 35,517.

Table III.

Causes of, and Ages at, Death during the Year 1911.

Name of District—CHESTER RURAL.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards	
All causes { Certified .....	...	...	...	...	...	...	...	...	...	...
{ Uncertified .....	..	..	..	..	..	..	..	..	..	..
Enteric Fever .....	...	...	...	...	...	...	...	...	...	...
Small-pox .....	...	...	...	...	...	...	...	...	...	...
Measles	1	1	...	...	...	...	...	...	...	...
Scarlet Fever	3	2	1	...	...	...	...	...	...	...
Whooping-Cough	2	...	...	1	1	...	...	...	...	...
Diphtheria and Croup .....	...	...	...	...	...	...	...	...	...	...
Influenza .....	...	...	...	...	...	...	...	...	...	...
Erysipelas .....	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever .....	...	...	...	...	...	...	...	...	...	...
Dysentery .....	...	...	...	...	...	...	...	...	...	2
Phthisis (Pulmonary Tuberculosis) ..	5	...	...	...	...	2	2	1	...	9
Tuberculous Meningitis	1	...	...	1	...	...	...	...	...	...
Other Tuberculous Diseases	2	...	...	...	...	1	...	1	...	3
Rheumatic Fever .....	...	...	...	...	...	...	...	...	...	...
Cancer, malignant disease	10	...	...	...	...	...	1	7	...	...
Bronchitis	8	1	1	...	...	...	...	...	6	...
Broncho-Pneumonia .....	...	...	...	...	...	...	...	...	...	...
Pneumonia (all other forms)	6	1	...	...	1	...	3	...	1	3
Other diseases of Respiratory organs	2	...	...	...	...	...	...	...	2	...
Diarrhœa and Enteritis	10	7	...	...	...	...	...	1	2	...
Appendicitis and Typhlitis .....	...	...	...	...	...	...	...	...	...	...
Alcoholism .....	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver .....	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ..	4	...	...	...	...	...	1	2	1	6
Euerperal Fever .....	...	...	...	...	...	...	...	...	...	2
Other accidents and diseases of Preg- nancy and Parturition	1	...	...	...	...	1	...	...	...	...
Congenital Debility and Malforma- tion, including Premature Birth ..	9	9	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ..	7	...	...	1	...	...	4	2	...	...
Suicides	1	...	...	...	...	...	...	1	...	...
Other Defined Diseases	46	4	1	...	1	...	7	10	23	49
Diseases ill defined or unknown	7	...	...	...	...	...	...	...	7	11
Totals	125	25	3	3	3	4	18	25	44	85

TARVIN RURAL DISTRICT.

SUMMARY OF VITAL STATISTICS FOR 1911.

Area	...	...	...	56,874 acres
Census Population, 1911	...	...	...	13,187
Population estimated to June 30th, 1911...	...	...	...	13,201
Births (corrected)	...	...	...	271
Birth-rate	...	...	...	20·5
Deaths (corrected)	...	...	...	192
Death-rate	...	...	...	14·5
Infantile Mortality	...	...	...	32 under 1 year or 118·0 per 1,000 births

BIRTHS.—During the fifty-two weeks of the year ending December 31st, 1911, the returns of the Registrar recorded 271 (corrected), which is equal to a birth-rate of 20·5 per 1,000 of the population. This rate is the lowest since 1907.

DEATHS.—The total number of deaths was 192 (corrected), which is equal to a death-rate of 14·5. Four non-residents died in the district, and seven residents died outside the district; 192 is the corrected number. 32 of these deaths occurred in children under one year of age, and 75 were 65 years old and upwards.

INFANT MORTALITY.—Of the 32 deaths under one year of age mentioned above, 7 were under 1 week old, 1 between 1 and 2 weeks, 1 between 2 and 3 weeks, 2 between 3 and 4 weeks, 9 between 1 and 3 months, 3 between 3 and 6 months, 5 between 6 and 9 months, 4 between 9 and 12 months, giving an infant mortality rate 118·0 per 1,000 births.

INFECTIOUS DISEASES NOTIFICATION ACT.—There were 67 cases of Infectious Disease notified during the year 1911, viz. :—

Diphtheria (including Membranous Croup)	...	15
Erysipelas	...	1
Scarlet Fever	...	48
Enteric Fever	...	1
Puerperal Fever...	...	1
Phthisis (1908 Regulations)	...	1

There were four deaths from Diphtheria :—One between 1 and 2 years old; two, between 5 and 15 years old; one, 65 and upwards. There was a death from Scarlet Fever between 1 and 2 years old. There was one death from Enteric between the age period of 15 and 25 years.

Infectious cases are sent to the Isolation Hospital at Sealand, Tarvin being one of the districts constituting the Joint Hospital Board.

SANITARY INSPECTION.—There are two Inspectors for your district. Mr. Dean, of Clotton, near Tarporley takes the north district, and Mr. Boden, of Saughton, takes the south. They have made numerous inspections from time to time alone, and with the Medical Officer of Health.

A tabulated statement shewing particulars of these inspections is appended.

TARVIN RURAL DISTRICT.

SUMMARY OF SANITARY WORK DURING 1911.

I. None of the following Adoptive Acts are in force in your district.

1. Infectious Diseases Prevention Act.
2. Notification of Births Act.
3. Public Health Amendment Act 1907.

II. There are no other Adoptive Acts, Bye-laws and Regulations in force in your district.

III. **MILK SUPPLY.**—TARVIN RURAL DISTRICT. The number of registered premises at the close of 1911 were 29 ; these were regularly inspected. Two notices were served for non-compliance with the regulations, and no legal actions were necessary.

The milk produced within the district is wholesome, and no action has been taken as to tuberculous milk.

Very few of the registered dairymen have sold milk during 1911 until the last few weeks of the year, when most of them commenced milk-selling. The cowsheds are all clean and well kept, but most of them are short of ventilation and have inside gulleys. There are very few shippens with the 600-800 cubic feet of air space per cow as suggested by the Board of Agriculture and Fisheries.

IV. **FOOD INSPECTION.**—TARVIN RURAL DISTRICT. Food inspection is not systematically carried out in your district. There are no public slaughterhouses. There are twelve private slaughterhouses and these have been inspected 42 times during the year 1911. There is a systematic inspection of the 16 bakerhouses.

V. **WATER SUPPLY.**—TARVIN RURAL DISTRICT. The northern portion of the district is supplied partially by pipe supply, and partially from public and private wells. The Parishes of

Ashton, Mouldsworth, Kelsall, Willington, Beeston, Tilston-Fearnall, Tiverton, Saighton, and Waverton, comprising about 406 houses, are supplied by pipe; the remaining parishes, with about 1,420, from wells.

The southern portion of the Tarvin Rural District is supplied, as to the parishes or parts of the parishes of Aldford, Buerton, Churton-by-Aldford, by the Wrexham Water Works; the remaining parishes by springs and deep and shallow wells.

The water supply during the hot and dry summer of 1911 was inadequate in many parts of the districts, viz.: Newton, Broxton, Burwardsley, Tilston, Harthill, and Carden, but is quite sufficient and satisfactory during an ordinary summer. This is explained by the fact that these parishes are on or just fringe the range of hills that form the eastern boundary of the district. The long period of drought affected these sandy hills, preventing their performing their natural functions of collectors of water.

The water supply as far as I have been able to judge at present is otherwise sufficient, and with two exceptions in a polluted well at Shocklach and another at Broxton, which have been closed, fairly free from the risks of pollution.

No contamination of any of the water supplies by lead has occurred.

VI. POLLUTION OF RIVERS AND STREAMS.—In the TARVIN RURAL DISTRICTS all the tributary streams of the Gowy are more or less polluted by farm sewage, which should be dealt with on the land. PRIVATE SEWAGE DISPOSAL WORKS are likely to pollute the brook at Tattenhall, and the Dee at Farndon. SOLID MATTERS, accumulation of cinders, refuse, sludge, &c.—The River Dee at Farndon, the brook at Tattenhall, and at Churton Heath. HOUSE DRAINAGE.—The River Dee at Farndon, Tilston Brook, Churton Heath and Tattenhall. MANUFACTURING WASTE or Effluents.—The Bone and Glue Works, Tattenhall Road; the Creamery, Tattenhall; and a cheese factory at Churton Heath.

VII. SEWERAGE AND SEWAGE DISPOSAL.—There have been no new works of sewerage carried out in your district during 1911. Farndon and Tattenhall are still without a proper system of sewage. The sewage is disposed of, in most cases, into the nearest watercourse in a crude state. In some few cases it is filtered before entering the stream; in other cases it is deposited on the land. There have been no complaints during 1911 as to the disposal of sewage, except from the Chester Water Works Company. No alterations or extensions have taken place in the disposal works during 1911.

VIII. SCAVENGING.—Scavenging is not carried out by your authority. House refuse such as ashes is carted away by farmers for repairing their gateways, and the scavenging of closets is done by the occupier, the contents being used or buried in the gardens.

Approximately there are about

- 2,000 Middenprivies
- 1,200 Dry Ashpits (south division only)
- 800 Pail Closets (emptied weekly)
- No record of Dustbins
- 750 Cesspools (south division only)

in your district.

There are too many midden privies in your district. These ought to be condemned, and the pail closet system introduced whenever opportunity offers.

There is inadequate closet accommodation in some parts of your district; as many as three houses use the same privy.

IX. HOUSING.—The number of new houses built during 1911 is 13 in the north division, and 2 in the south division. The number of dwelling-houses inspected under S. 17. Act of 1909, is 85. The number of such houses considered unfit for habitation is four.

The number of representations made to the Local Authority. .59

„	„	closing orders made by „	„	..	0
„	„	defects remedied without closing orders		..	53
„	„	„	„	after „	„
				..	0

Estimated number of houses within limits of rent in S. 14 of Act of 1909, about 1,750.

The number of such houses in respect of which notice was served during 1911—five.

The number of such houses closed after notice—none.

The number of such houses where Local Authority has executed necessary repair—none.

There are no back-to-back houses in your district, and no cellar dwellings.

X. PREVENTION OF CONSUMPTION.—There was no system of notification in force during 1911 except voluntary. There were two sanitary inspections of patients' houses during 1911, and one disinfection done. There was no distribution of advice and no action with regard to spitting.

Printed forms will be issued in your district, as well as the districts of Tarporley, Chester Rural District, and Malpas Rural District, to all consumptive patients notified, advising them how to live hygienically, and prevent further infection in others.

Mr. Dean's Tabular Statement of Nuisances for the Year ended December 31st, 1911.
Name of District—TARVIN RURAL.

A Number and Nature of Inspections made.	Number.	B Number of Notices served.		C Result of Service of Notices.		
		Statutory.	Informal.	Notice com- plied with.	Remaining in hand.	Prosecutions. Instituted. Pending.
1. Dwelling Houses (general inspections).....	79		23	7	16	...
2. Cellar Dwellings.....				...	...	...
3. Back-to-Back Houses.....				...	...	...
4. Tents, Vans, Sheds, &c.....				...	...	...
5. Courts, Yards, Passages.....	1800			...	...	...
6. Privy-Middens, Earth or Pail Closets.....	50			...	...	...
7. Cesspools.....	65		28	18	10	...
8. House Drainage.....				...	...	...
9. Ditches, Watercourses, &c.....				...	...	...
10. Offensive Accumulations.....				...	...	...
11. The keeping of Animals (P.H.A., 1875, S. 91, 3)).....				...	...	...
12. Offensive Trades.....				...	...	...
13. (a) Slaughterhouses (Public) " " " " " " " " " " (b) Other Places where Food is produced or sold—Bake- houses 24 (c) Piggeries..... 4 (a) Dairies..... 180 (b) Cowsheds..... 180 (c) Milkshops..... 9 16. (a) Factories—Corn Mills 7, Rubber Works 1 (b) Workshops..... 27 (c) Workplaces..... 7 (d) Outworkers' Premises..... 17. Bakehouses (Overground)..... 8 " " " " " " " " " (Underground)..... 1 18. Common Lodging Houses..... 19. Houses let in Lodgings..... 20. Smoke Observations..... 21. Canal Boats..... 1 22. Infectious Disease Inquiries and Revisits..... 30 x 2 23. Miscellaneous.....			54	25	26	...
TOTALS.....						...

Mr. Boden's Tabular Statement of Nuisances for the Year ended December 31st, 1911.
Name of District—*TARVIN RURAL*.

A		B		C		
Number and Nature of Inspections made.		Number of Notices served.		Result of Service of Notices.		
	Number.	Statutory.	Informal.	Notice com- plied with.	Remaining in hand.	Pro-se-cu-tions
						Instituted. Pending.
1. Dwelling Houses (general inspections)	34	...	8	4	4	...
2. Cellar Dwellings .....	...	...	...	...	...	...
3. Back-to-Back Houses .....	...	...	...	...	...	...
4. Tents, Vans, Sheds, &c.	30	...	...	...	...	...
5. Courts, Yards, Passages	1100	11	12	12	...	...
6. Privy-Middens, Earth or Pail Closets	700	4	10	11	...	...
7. Cesspools	34	3	10	14	...	...
8. House Drainage	10	...	10	7	3	...
9. Ditches, Watercourses, &c. ....	...	...	10	10	...	...
10. Offensive Accumulations	1	...	1	1	...	...
11. The keeping of Animals (P.H.A., 1875, S. 91 (3)) .....	...	...	...	...	...	...
12. Offensive Trades	6	...	2	2	...	...
13. (a) Slaughterhouses (Public)	10	...	3	2	1	...
(b) " (Private) .....	...	...	...	...	...	...
(b) Other Places where Food is produced or sold .....	...	...	...	...	...	...
14. Piggeries	27	...	2	1	...	...
15. (a) Dairies .....	...	...	...	...	...	...
(b) Cowsheds	2	...	1	...	...	...
(c) Milkshops	3	...	...	...	...	...
16. (a) Factories	2	...	...	...	...	...
(b) Workshops	2	...	...	...	...	...
(c) Workplaces	7	...	6	4	2	...
(d) Outworkers' Premises	1	...	1	...	1	...
17. Bakehouses (Overground)	2	...	...	...	...	...
" (Underground) .....	...	...	...	...	...	...
18. Common Lodging Houses .....	...	...	...	...	...	...
19. Houses let in Lodgings .....	...	...	...	...	...	...
20. Smoke Observations .....	...	...	...	...	...	...
21. Canal Boats	39 cases	...	...	...	...	...
22. Infectious Disease Inquiries and Revisits .....	...	...	...	...	...	...
23. Miscellaneous	Overcrowding	...	1	1	...	...
TOTALS .....	...	...	...	...	...	...

RURAL DISTRICT OF TARVIN.

The administration of the Factory and Workshop Act, 1901, in connection with
Factories, Workshops, Workplaces, and Homework.

I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Pro-secutions.
Factories	Inspected regularly.	All Notices verbal.	Nil.
(Including Factory Laundries) ...			
Workshops			
(Including Workshop Laundries) ...			
Workplaces			
(Other than Outworkers' premises included in Part 3 of this Report).			
Total			

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :</i>				
Want of cleanliness				
Want of ventilation	1	1		
Overcrowding				
Want of drainage of floors				
Other nuisances				
Sanitary accommodation { insufficient				
{ unsuitable or defective				
{ not separate for sexes...				
<i>Offences under the Factory & Workshop Act</i>				
Illegal occupation of underground bakehouse (s. 101)				
Breach of special sanitary require- ments for Bakehouses (ss. 97 to 100)				
Other offences				
(Excluding offences relating to out- work which are included in Part 3 of this Report)				
Total	1	1		

3.—OTHER MATTERS

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5.)	Notified by H.M. Inspector. Reports (of action taken) sent to H.M. Inspector.
Other	—
Underground Bakehouses (s. 101):—	
Certificates granted during the year	—
In use at the end of the year	—
Number of	
Lists. Out-workers	
HOMEWORK :—	
<i>List of Outworkers (s. 107):—</i>	
Lists received	—
Addresses of outworkers	forwarded to other Authorities recorded from other Authorities
<i>Homework in unwholesome or infected premises :—</i>	
Notices prohibiting homework in unwholesome premises (s. 108)	Wearing Apparel. Other.
Cases of infectious disease notified in homeworkers' premises	—
Orders prohibiting homework in infected premises (s. 110)	—
REGISTERED WORKSHOPS :—	
Workshops on the Register (s. 131) at the end of the year :—	
Workshops ... ^{N. S.} 27 3	30
Workplaces ... 7 2	9
Bakehouses ... 8 8	16
Factories ... 9 2	11
Total number of workshops on Register	66

Table I. Vital Statistics of Whole Districts during 1911 and previous Years.

Name of District—TARVIN RURAL.

Year	Population estimated to middle of each year.	Births.			Total deaths registered in the District.		Transferable Deaths		NET DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age.		At all ages.	
			Num-ber.	Rate.					Num-ber.	Rate per 1,000 nett Births	Num-ber.	Rate.
1906	12544	...	314	25.0	141	11.2	...	7	20	64	148	11.8
1907	12530	...	258	20.6	137	10.9	...	8	27	105	141	11.2
1908	12516	...	308	24.6	158	12.6	...	11	20	65	169	13.5
1909	12503	...	292	23.3	157	12.5	...	6	29	99	163	13.0
1910	12584	...	313	24.8	128	10.1	...	2	20	64	130	10.3
1911	13201	271	271	20.5	189	14.3	4	7	32	118	192	14.5

Total Population at all Ages, 13,187, at Census of 1911.

Area of District in Acres (exclusive of area covered by water), 56,874.

Table II. Cases of Infectious Disease notified during the year 1911.
Name of District—*TARVIN RURAL*.

Notifiable Disease.	Number of Cases notified.								Total Cases notified in each locality (<i>e.g.</i> Parish or Ward) of the District.							Total cases removed to Hospital.
	At all Ages.															
	At Ages—Years.															
	Under 1.	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards.	1	2	3	4	5	6	7		
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup) ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ...	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus Fever ...	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever ...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under Tuberculosis Regulations 1908 ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under Tuberculosis Regulations 1911 ...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Others...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals...	67	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Isolation Hospital

(Name and Situation)

Chester Isolation Hospital, Sealand.

Isolation Hospital { Name and }
Chester Isolation Hospital, Sealand. { Situation }

Table III.

Causes of, and Ages at, Death during the Year 1911.

Name of District—TARVIN RURAL.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All causes { Certified	187	...	...	...	...	...	...	...	...	...
{ Uncertified	5	..	...	..	...	...	...	...	...	...
Enteric Fever	1	...	...	...	...	1	...	...	...	...
Small-pox .....	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	...	1	...	...	...	...	...	...	...
Whooping-Cough	5	2	1	2	...	...	...	...	...	...
Diphtheria and Croup	4	...	1	...	2	...	...	...	1	...
Influenza .....	...	...	...	...	...	...	...	...	...	...
Erysipelas .....	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever .....	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	5	...	...	...	...	2	2	1	...	...
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	1	...	...	...	...	...	1	...	...	...
Rheumatic Fever .....	...	...	...	...	...	...	...	...	...	...
Cancer, malignant disease	13	...	...	...	...	...	1	7	5	...
Bronchitis	14	2	1	...	...	...	...	3	8	...
Broncho-Pneumonia	2	...	...	...	...	...	...	1	1	...
Pneumonia (all other forms)	9	1	1	...	...	1	3	1	2	...
Other diseases of Respiratory organs ..	1	...	...	...	...	...	...	1	...	...
Diarrhoea and Enteritis	10	7	1	...	...	...	...	...	2	...
Appendicitis and Typhlitis	2	...	...	...	...	...	...	1	1	...
Alcoholism	1	...	...	...	...	...	...	1	...	...
Cirrhosis of Liver .....	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	5	...	...	...	1	1	1	...	2	...
Erysipelas	2	...	...	...	...	...	2	...	...	...
Other accidents and diseases of Pregnancy and Parturition	3	...	...	...	...	1	2	...	...	...
Congenital Debility and Malformation, including Premature Birth...	5	4	...	1	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...	2	...	...	1	1	...	...	...	...	...
Suicides	2	...	...	...	...	...	1	1	...	...
Other Defined Diseases	84	12	1	3	4	2	5	20	37	...
Diseases ill defined or unknown	20	4	...	...	...	...	...	...	16	...
Totals	192	32	7	7	8	8	18	37	75	...

Table IV.

Infant Mortality during the Year 1911.

Name of District—TARVIN RURAL.

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
All Causes.	{ Certified ..	..	..	..	..	..	..	..	..	..	..
	{ Uncertified ..	..	..	..	..	..	..	..	..	..	..
Small Pox ..		..	..	..	..	..	..	..	..	..	..
Chicken Pox ..		..	..	..	..	..	..	..	..	..	..
Measles ..		..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..		..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup ..		..	..	..	..	..	..	..	..	..	..
Whooping Cough ..		..	..	..	..	..	2	1	..	..	3
Diarrhœa ..		..	..	..	..	..	..	..	3	1	4
Enteritis ..		..	..	..	..	..	..	1	..	..	1
Tuberculous Meningitis ..		..	..	..	..	..	..	..	..	..	..
Abdominal Tuberculous ..		..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases ..		..	..	..	..	..	..	..	..	..	..
Congenital Malformations ..		..	..	..	..	..	..	..	..	..	..
Premature Birth ..		2	..	..	..	2	..	..	..	..	2
Atrophy, Debility, Marasmus ..		1	..	1	..	2	..	..	..	..	2
Atelectasis ..		..	..	..	..	..	..	..	..	..	..
Injury at Birth ..		..	..	..	..	..	..	..	..	..	..
Erysipelas ..		..	..	..	..	..	..	..	..	..	..
Syphilis ..		..	..	..	..	..	..	..	..	..	..
Rickets ..		..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous) ..		..	..	..	..	..	..	..	..	..	..
Convulsions ..		3	1	..	1	5	2	..	..	1	8
Gastritis ..		..	..	..	..	..	1	..	1	..	2
Laryngitis ..		..	..	..	..	..	..	..	..	..	..
Bronchitis ..		..	..	..	..	..	2	..	..	..	2
Pneumonia (all forms) ..		..	..	..	..	..	..	1	..	..	1
Suffocation, overlying ..		..	..	..	..	..	..	..	..	..	..
Other Causes ..		1	..	..	1	2	2	..	1	2	7
		7	1	1	2	11	9	3	5	4	32

Nett Births in the Year—Legitimate, 268; Illegitimate, 33.

Nett Deaths in the Year—Legitimate Infants, 30; Illegitimate Infants, 2.

MALPAS RURAL DISTRICT.

SUMMARY OF VITAL STATISTICS FOR 1911.

Area	21,408 acres
Census Population, 1911...	4,643
Population estimated to June 30th, 1911...	4,681
Births (corrected)	101
Birth-rate	21·5
Deaths (corrected)...	50
Death-rate	10·6
Infantile Mortality	7 under 1 year or 69·0 per 1·000 births

BIRTHS.—During the fifty-two weeks of the year ending on Sunday, December 31st, 1911, the returns of the Registrars recorded 101 (corrected), which is equal to a birth-rate of 21·5 per 1,000 of the population. This rate is the lowest for the last five years, the next lowest being 23·9 in 1909. There were three illegitimate births.

DEATHS.—The total number of deaths was 50 (corrected), which is equal to a death-rate of 10·6. No non-residents died in the district, and only one resident died out of the district, 50 being the corrected number. Seven of these deaths occurred in children under one year of age, and 24 were 65 years old and upwards.

INFANT MORTALITY.—Of the seven deaths under one year of age mentioned above, three were under one week old, one died in the fourth week, three between the first and third month. One of these deaths was an illegitimate infant. Infant mortality rate 69·0 per 1,000 births.

INFECTIOUS DISEASES NOTIFICATION ACT.—There was only one case of Infectious Disease notified during the year 1911, and that was a case Erysipelas.

SANITARY INSPECTION.—Your late Inspector, Mr. Chubb, resigned after the first three months of the year. He made numerous inspections from time to time, and since October 1st your Medical Officer has made several systematic inspections. A tabulated statement of these inspections for the first three months of the year is appended.

MALPAS RURAL DISTRICT.

SUMMARY OF SANITARY WORK DURING 1911.

I. None of the following Adoptive Acts are in force in your district :—

1. Infectious Diseases Prevention Act.
2. Notification of Births Act.
3. Public Health Amendment Act 1907.

II. There are no other Adoptive Acts, Bye-laws and Regulations in force in your district.

III. *MILK SUPPLY*.—In your district the number of registered premises at the close of 1911 was 52. These have not been regularly inspected since April 1st, as no Nuisance Inspector was appointed till the end of the year. There were no notices served for non-compliance with regulations. The milk produced within the district is wholesome, and no action has been taken as to tuberculous milk.

IV. *FOOD INSPECTION*.—Food inspection is not systematically carried out in your district. There are no public slaughterhouses in your district. There are five private slaughterhouses which were inspected during the first quarter of the year. Systematic inspections of the seven bakehouses were also made during the first quarter of the year. The conditions found at these inspections were satisfactory.

V. *WATER SUPPLY*.—MALPAS RURAL DISTRICT is supplied largely from the Liverpool Corporation main. The main runs through the town of Malpas which it supplies, also the parish of Bickley. Other parishes are supplied from public and private wells. The supply is constant, and there are no complaints as to action on lead. There is a sufficient supply, and the wells are fairly free from the risk of pollution.

VI. *POLLUTION OF RIVERS AND STREAMS*.—In the MALPAS RURAL DISTRICT there seems to be little pollution of the streams, except from house and farm drainage. The farm drainage and sewage should be dealt with on the land. There was a complaint about the effluent from the Malpas public sewage disposal works polluting a stream. This was due to the very heavy rains in December causing flooding. This has and is receiving attention to prevent recurrence.

VII. *SEWERAGE AND SEWAGE DISPOSAL*.—No new works of sewerage have been carried out during 1911. The sewage for Malpas is disposed of by Dibdin's system, which is a

bacteriological treatment of sewage. There are three outfalls on to three lots of filter beds, arranged in two tiers. No alterations or extensions have taken place in the disposal works during 1911.

VIII. SCAVENGING.—Scavenging is not carried out by your authority. Most of the houses in the district have ashpit-privies or midden-privies. These are emptied when required on to the land, each householder being responsible for the disposal of his own refuse.

I am unable to give the approximate number of midden-privies, dry ashpits, pail closets, dustbins, cesspools, in your district, but hope to do so in my next report.

IX. HOUSING.—No dwelling-houses have as yet been inspected under S. 17, Act of 1909, owing to our not having had a Nuisance Inspector.

The estimated number of houses within limits of rent in S. 14 of Act of 1909 is about 870.

There are no back-to-back houses in your district, and no cellar dwellings.

X. PREVENTION OF CONSUMPTION.—There has been no system of notification in force during 1911, and no sanitary inspection of patients' houses. Neither has there been any disinfection, distribution of advice, nor action *re* spitting.

In future, printed forms will be given to all consumptive patients notified, advising them how to live hygienically and prevent further infection in others.

There is no Sanatorium or Hospital accommodation in your district for phthisis patients.

Tabular Statement of Nuisances for the period ended March 31st, 1911.

Name of District—MALPAS RURAL.

A Number and Nature of Inspections made.	Number.	B Number of Notices served.				C Result of Service of Notices.		
		Number of Notices served.		Informal.	Notice complied with.	Remaining in hand.	Prosecutions.	
		Statutory.	Informal.				Instituted.	Pending.
1. Dwelling Houses (general inspections).....	16	..	..	..	..	..	..	..
2. Cellar Dwellings .....		..	..	..	..	..	..	..
3. Back-to-back Houses.....		..	..	..	..	..	..	..
4. Tents, Vans, Sheds, &c. ....		..	..	..	..	..	..	..
5. Courts, Yards, Passages .....		..	1	..	..	..	..	..
6. Privy-Middens, Earth or Pail Closets	1	..	..	..	..	..	..	..
7. Cesspools .....		..	..	..	..	..	..	..
8. House Drainage .....		..	..	..	..	..	..	..
9. Ditches, Watercourses, &c.	5	4	..	..	1	..	..	..
10. Offensive Accumulations	1	..	..	..	..	5	..	Time given for abatement not expired.
11. The keeping of Animals (P. H. A., 1875, S. 91. 3)) .....		..	..	..	..	..	..	..
12. Offensive Trades .....		..	..	..	..	..	..	..
13. (a) Slaughterhouses (Public) .....		..	..	..	..	..	..	..
(b) Other Places where Food is produced or sold.....		..	..	..	..	..	..	..
14. Piggeries .....		..	..	..	..	..	..	..
15. (a) Dairies	52	..	..	..	..	..	..	..
(b) Cowsheds .....		..	..	..	..	..	..	..
(c) Milkshops .....		..	..	..	..	..	..	..
16. (a) Factories	7	..	..	..	..	..	..	..
(b) Workshops .....		..	..	..	..	..	..	..
(c) Workplaces .....		..	..	..	..	..	..	..
17. (d) Outworkers' Premises .....		..	..	..	..	..	..	..
Bakehouses (Overground) .....		..	..	..	..	..	..	..
" (Underground) .....		..	..	..	..	..	..	..
18. Common Lodging Houses .....		..	..	..	..	..	..	..
19. Houses let in Lodgings .....		..	..	..	..	..	..	..
20. Smoke Observations .....		..	..	..	..	..	..	..
21. Canal Boats .....		..	..	..	..	..	..	..
22. Infectious Disease Inquiries and Revisits .....		..	..	..	..	..	..	..
23. Miscellaneous .....		..	..	..	..	..	..	..
TOTALS	82	4	3	1	5			

3.—OTHER MATTERS

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5)	—
Other	—
Underground Bakehouses (s. 101):—	—
Certificates granted during the year	—
In use at the end of the year	—
	Number of
	Lists. Out-workers
HOMEWORK :—	
<i>List of Outworkers</i> (s. 107) :—	
Lists received	—
Addresses of outworkers { forwarded to other Authorities { recorded from other Authorities	—
<i>Homework in unwholesome or infected premises :—</i>	
Notices prohibiting homework in unwholesome premises (s. 108)	—
Cases of infectious disease notified in homeworkers' premises	—
Orders prohibiting homework in infected premises (s. 110)	—
	Wearing Apparel. Other.
REGISTERED WORKSHOPS :—	
Workshops on the Register (s. 131) at the end of the year :—	
Bakehouses	7
Blacksmiths	9
Wheelwrights	3
Tailors	3
Dressmakers	2
Saddler	1
Shoemakers	3
Total number of workshops on Register	28

Table I.

Vital Statistics of Whole Districts during 1911 and previous Years.

Name of District—MALPAS RURAL.

Year	Population estimated to middle of each year.	Births.			Total deaths registered in the District.		Transferable Deaths		NETT DEATHS BELONGING TO THE DISTRICT.		
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age.		At all ages.
			Num-ber.	Rate.					Num-ber.	Rate per 1,000 nett Births	
1906	4423	...	124	28.0	46	10.4	...	...	5	40	47
1907	4410	...	107	24.3	43	9.7	...	...	7	65	45
1908	4397	...	124	28.2	47	10.7	...	...	13	105	53
1909	4380	...	105	23.9	54	12.3	...	...	7	66	54
1910	4362	...	111	25.4	54	12.1	...	...	7	63	61
1911	4681	101	101	21.5	49	10.4	...	1	7	69	50

Total Population at all Ages, 4,643, at Census of 1911.

Area of District in Acres (exclusive of area covered by water), 21,408.

Table III.

Causes of, and Ages at, Death during the Year 1911.

Name of District—MALPAS RURAL.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards	
All causes { Certified .....	...	...	...	...	...	...	...	...	...	..
{ Uncertified .....	...	..	...	...	...	...	...	...	...	..
Enteric Fever .....	...	...	...	...	...	...	...	...	...	...
Small-pox .....	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	...	...	...
Scarlet Fever .....	...	...	...	...	...	...	...	...	...	...
Whooping-Cough	1	1	...	...	...	...	...	...	...	...
Diphtheria and Croup .....	...	...	...	...	...	...	...	...	...	...
Influenza .....	...	...	...	...	...	...	...	...	...	...
Erysipelas .....	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever .....	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ..	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases .....	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever .....	...	...	...	...	...	...	...	...	...	...
Cancer, malignant disease	6	...	...	...	...	...	1	4	1	...
Bronchitis	1	...	...	...	...	...	...	...	1	...
Broncho-Pneumonia	1	...	...	...	...	...	...	...	1	...
Pneumonia (all other forms)	1	...	...	...	...	...	...	...	1	...
Other diseases of Respiratory organs ..	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis	1	...	...	...	...	...	...	...	1	...
Appendicitis and Typhlitis .....	...	...	...	...	...	...	...	...	...	...
Alcoholism .....	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver .....	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ..	1	...	...	...	...	...	1	...	...	...
Fuerperal Fever .....	...	...	...	...	...	...	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition ..	...	...	...	...	...	...	...	...	...	...
Congenital Debility and Malformation, including Premature Birth...	3	3	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ..	1	...	...	...	...	...	1	...	...	...
Suicides	1	...	...	...	...	...	1	...	...	...
Other Defined Diseases	24	2	1	...	1	1	2	5	12	...
Diseases ill defined or unknown	9	1	...	...	...	...	...	1	7	...
Totals	50	7	1	...	1	1	6	10	24	..

Table IV.

Infant Mortality during the Year 1911.

Name of District—MALPAS RURAL.

CAUSE OF DEATH.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under One Year
All Causes.	Certified ..	...	...	...	...	...	...	...	...	...	...	...	...
	Uncertified ...	...	...	...	...	...	...	...	...	...	...	...	...
Small Pox ... ..				...	...	...	...	...	...	...	...	...	...
Chicken Pox ... ..				...	...	...	...	...	...	...	...	...	...
Measles ... ..				...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..				...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup ... ..				...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..				...	...	...	...	...	1	...	...	...	1
Diarrhoea ... ..				...	...	...	...	...	...	...	...	...	...
Enteritis ... ..				...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis ... ..				...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculous ... ..				...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases ... ..				...	...	...	...	...	...	...	...	...	...
Congenital Malformations ... ..				...	...	...	...	...	...	...	...	...	...
Premature Birth				1	...	...	...	1	...	...	...	...	1
Atrophy, Debility, Marasmus				2	...	...	...	2	1	...	...	...	3
Atelectasis ... ..				...	...	...	...	...	...	...	...	...	...
Injury at Birth ... ..				...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..				...	...	...	...	...	...	...	...	...	...
Syphilis ... ..				...	...	...	...	...	...	...	...	...	...
Rickets ... ..				...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) ... ..				...	...	...	...	...	...	...	...	...	...
Convulsions ... ..				...	...	...	...	...	...	...	...	...	...
Gastritis ... ..				...	...	...	...	...	...	...	...	...	...
Laryngitis ... ..				...	...	...	...	...	...	...	...	...	...
Bronchitis ... ..				...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) ... ..				...	...	...	...	...	...	...	...	...	...
Suffocation, overlying ... ..				...	...	...	...	...	...	...	...	...	...
Other Causes ... ..				...	...	...	1	1	1	...	...	...	1
				3	...	...	1	4	3	...	...	...	7

Nett Births in the Year—Legitimate, 98; Illegitimate, 3.

Nett Deaths in the Year—Legitimate Infants, 6; Illegitimate Infants, 1.